WHAT IS CLAIMED IS:

Sub A14

1. A data processing system comprising:

a plurality of processors for executing a series of processings to data to be processed in a prescribed order; and

a memory for storing said data to be processed and state information to represent the processing state of said data in association with each other, wherein

processings executed by said plurality of processors are asynchronously executed and said plurality of processors share said memory.

2. The data processing system according to claim 1, wherein said plurality of processors each determine if said data to be processed can be processed based on said state information.

Sub A15

3. The data processing system according to claim 2, wherein said plurality of processors each execute a processing to said data to be processed, and then rewrite said state information corresponding to the processed data.

4. The data processing system according to claim 1, further comprising a first controller for controlling said plurality of processors to execute said series of processings based on said state information.

Sub A16

5. The data processing system according to claim 4, wherein said first controller rewrites said state information corresponding to processed data in response to the completion of each of processings by said plurality of processors.

6. The data processing system according to claim 1, further comprising a second controller for determining the attribute of said data to be processed, wherein

said second controller rewrites said state information corresponding to said data to be processed in order to change the order of executing said series of processings if it is determined that said data to be processed has a prescribed attribute.

7. The data processing system according to claim 6, wherein said second controller rewrites said state information corresponding to said data to be processed in order to remove a part of said series of processings, if it is determined that said data to be processed has a prescribed attribute.

8. The data processing system according to claim 1, wherein said memory has one region to store said state information corresponding to one region to store said data to be processed.

9. The data processing system according to claim 1, wherein said memory has one region to store said state information corresponding to a plurality of regions to store said data to be processed.

10. The data processing system according to claim 1, wherein said data to be processed is image data.

11. A data processing system, comprising:

a plurality of processing means for executing a series of processings to data to be processed in a prescribed order; and

memory means for storing said data to be processed and state information to represent the processing state of said data in association with each other, wherein

processings executed by said plurality of processing means are executed asynchronously, and said plurality of processing means share said memory means.

12. The data processing system according to claim 11, wherein

said plurality of processing means each determine whether said data to be processed can be processed based on said state information.

Sub A19

13. The data processing system according to claim 12, wherein said plurality of processing means each execute a processing to said data to be processed and then rewrite said state information corresponding to the processed data.

14. The data processing system according to claim 11, further comprising first control means for controlling said plurality of processing means to execute said series of processings based on said state information.

Sub A20

15. The data processing system according to claim 14, wherein said first control means rewrites said state information corresponding to processed data in response to the completion of each of processings by said plurality of processing means.

16. The data processing system according to claim 11, further comprising a second control means for determining the attribute of said data to be processed, wherein

if it is determined that said data to be processed has a prescribed attribute, said second control means rewrites said state information corresponding to said data to be processed in order to change the order of executing said series of processings.

17. The data processing system according to claim 16, wherein said second control means rewrites said state information corresponding to said data to be processed in order to remove a part of said series of processings if it is determined that said data to be processed has a prescribed attribute.

Sub A21

18. The data processing system according to claim 11 ,wherein said memory means has one region to store said state information

Sub A21

corresponding to one region to store said data to be processed.

19. The data processing system according to claim 11, wherein said memory means has one region to store said state information corresponding to a plurality of regions to store said data to be processed.

20. The data processing system according to claim 11, wherein said data to be processed is image data.

Add A22

Add E1